

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Lieve Maria Marcella Rosemarijn BOS, et al.

Attorney Docket Q62246

Appln. No.: Not yet assigned

Group Art Unit: Not yet assigned

Filed: December 21, 2000

Examiner: Not yet assigned

For: A PROCESSING ENVIRONMENT DETERMINER

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

IN THE SPECIFICATION:

Page 1, after the title, insert the heading **--Background of the Invention--**.

first paragraph, please amend as follows:

The present invention relates to a processing environment determining means for inclusion in a telecommunication network to a telecommunication network comprising such a processing environment determining means, to a method to be performed by such a processing environment determining means and to a terminal capability server means and a network service capability server means that cooperates with such a processing environment determining means.

Page 4, after line, 20, insert the heading **--Summary of the Invention--**.

Paragraph beginning at line 27, amend as follows:

This object is achieved by the processing environment determining means, by the telecommunication network that comprises such a processing environment determining means, by the method that is used by such a processing a processing environment determining means, by the terminal capability server means and the network service capability server means that inter-operates with such a processing environment determining means all as described herein.

Page 6, paragraph beginning at line 19, amend as follows:

A further feature of the invention is that the predefined rules and conditions are at least partly determined by any one of user requirements and user preferences of a user that uses a terminal, and operator requirements and operator preferences of an operator that exploits the network elements, and service provider requirements and service provider preferences of a service provider that operates the service provider equipment. In this way, the different parties that comprises the different processing environments are involved in the appointing process. It has to be explained that user requirements are e.g. required minimum delays for receiving a result of a service, required predefined Quality of Service and a user preference is e.g. a preferred Quality of Service. The sub-network requirements are e.g. maximum load balancing statistics or required processing capacity distribution in the different network elements of a sub-network and a sub-network preference is e.g. preferred processing capacity distribution in the different network elements of the sub-network.

Page 7, paragraph beginning at line 6, amend as follows:

A further characteristic feature of the invention is that the predefined requirements and preferences are e.g. communicated by a user to a the party that exploits the processing environment determining means and are entered as a parameter in an algorithm that represents the predefined rules and conditions. However, the processing

environment determining means further comprises second retrieving means to retrieve, not only from a memory, but eventual also 'on line' updated user requirements, user preferences, operator requirements, operator preferences, service provider requirements and service provider preferences from any one of a terminal, a network element and a service provider equipment.

paragraph beginning at line 29, amend as follows:

This problem is solved by the feature of the invention whereby the first retrieving means retrieves the processing capability information from any one of a terminal capability server means via predefined terminal application open signals and a network service capability server means of a sub-network via predefined network application open service architecture signals.

Page 9, paragraph beginning at line 4, delete this paragraph.

Page 10, paragraph, beginning at line 5, delete this paragraph.

paragraph beginning at line 15, amend as follows:

A further feature of the invention is that the processing environment determining means according to the present invention can be comprised in any one of a terminal, a sub-network being any one of a home network, a visited network and an intermediate network of said telecommunication network and a service provider equipment.

paragraph beginning at line 20, amend as follows:

A final characteristic feature becomes clear by explaining that the first retrieving means might retrieve processing capability information that is associated with any one of a User Service Identity Module USIM of a terminal and a terminal equipment of a terminal. Indeed, as it is described above, a

terminal can comprise next to its terminal equipment also a USIM that has its own processing capability.

Page 11, after line 24, insert the heading **--Brief Description of the Drawings--**.

after line 30, insert the heading **--Detailed Description of the Invention--**.

IN THE CLAIMS:

1. (Amended) A processing environment determining device for inclusion in a telecommunication network, **characterized** in that said processing environment determining device comprises a first which retrieves at least one processing capability information associated with any one of a terminal, a network element of a sub-network and a service provider equipment of a service provider of said telecommunication network; and said processing environment determining device further comprises an appointing device coupled to said first retriever to appoint, for a predefined service of a predefined client, according to predefined rules and conditions, and according to said processing capability information, one or more out of said terminal, said network elements and said service provider equipment, and to determine thereby an appointed processing environment that has to be used to execute said predefined service.

2. (Amended) The processing environment determining device according to claim 1, characterized in that said predefined rules and conditions are at least partly determined by any one of:

user requirements and user preferences of a user that uses said terminal,
operator requirements and operator preferences of an operator that exploits said network element,
service provider requirements, and
service provider preferences of a service provider that operates said service provider equipment.

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3. (Amended) The processing environment determining device according to claim 1, characterized in that said processing environment determining device comprises a second retriever retrieving any one of said user requirements, said user preferences, said operator preferences, said server provider requirements, said service provider preferences from any one of said terminal, said network elements and said service provider equipment in order to update said predefined rules and conditions accordingly.

4. (Amended) The processing environment determining device according to claim 1, characterized in that said first retriever retrieves said processing capability information from any one of a terminal capability server of said terminal via predefined terminal application open signals and a network service capability server of a sub-network via predefined network application open service architecture signals.

5. (Amended) The processing environment determining device according to claim 1, characterized in that said processing environment determining device is comprised in any one of a terminal, a sub-network being any one of a home network, a visited network and an intermediate network of said telecommunication network and a service provider equipment.

6. (Amended) The processing environment determining device according to claim 1, characterized in that said first retriever retrieves processing capability information that is associated with any one of a User Service Identity Module of said terminal and a terminal equipment of said terminal.

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7. (Amended) A terminal capability server of a terminal to be used in a telecommunication network, said terminal capability server adapted to translate first application signals into first predefined terminal application open signals and to translate second predefined terminal application open signals into second application signals, characterized in that said first predefined terminal application open signals and said second predefined terminal application open signals comprises a processing capability environment determining device according to claim 4.

8. (Amended) A network service capability server of a sub-network of a telecommunication network, said network service capability server adapted to translate first application signals into first predefined network application open service architecture signals and to translate second predefined network application open service architecture signals into second application signals, characterized in that said first predefined network application open server , architecture signals and said second predefined network application open service architecture signals comprise processing capability information in order to be forwarded to a processing environment determining device according to claim 4.

9. (Amended) A telecommunication network, characterized in that said telecommunication network comprises at least one processing environment determining device according to claim 1.

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IN THE ABSTRACT:

Please replace the existing Abstract with the new Abstract set forth on the following
page:

ABSTRACT

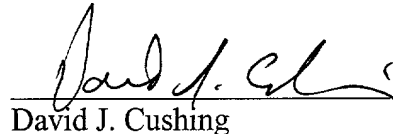
A processing environment determining device for inclusion in a telecommunication network. The processing environment determining device includes a first retriever for retrieving at least one processing capability information associated to any one of a terminal, a network element of a sub-network and a service provider equipment of a service provider of the telecommunication network. The processing determining device further includes an appointing device coupled to the first retriever for appointing, for a predefined service of a predefined client, according to predefined rules and conditions, and according to the processing capability information, one or more out of the terminal, the network elements and the service provider. In this way,. an appointed processing environment that has to be used to execute the predefined service is determined.

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REMARKS

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification is changed as follows:

Page 1, first paragraph, please amend as follows:

The present invention relates to a processing environment determining means for inclusion in a telecommunication network [according to claim 1], to a telecommunication network comprising such a processing environment determining means [according to the preamble of claim 9], to a method to be performed by such a processing environment determining means [according to claim 10] and to a terminal capability server means and a network service capability server means that cooperates with such a processing environment determining means[, according to the preamble of 7 and claim 8, respectively].

Page 4, paragraph beginning at line 27, amend as follows:

This object is achieved by the processing environment determining means [according to claim 1], by the telecommunication network that comprises such a processing environment determining means [according to claim 9], by the method that is used by such a processing a processing environment determining means [according to claim 10], by the terminal capability server means and the network service capability server means that inter-operates with such a processing environment determining means [according to claim 7 and claim 8, respectively], all as described herein.

Page 6, paragraph beginning at line 19, amend as follows:

[It is described by claim 2] A further feature of the invention is that
the predefined rules and conditions are at least partly determined by any one of

user requirements and user preferences of a user that uses a terminal, and operator requirements and operator preferences of an operator that exploits the network elements, and service provider requirements and service provider preferences of a service provider that operates the service provider equipment. In this way, the different parties that comprises the different processing environments are involved in the appointing process. It has to be explained that user requirements are e.g. required minimum delays for receiving a result of a service, required predefined Quality of Service and a user preference is e.g. a preferred Quality of Service. The sub-network requirements are e.g. maximum load balancing statistics or required processing capacity distribution in the different network elements of a sub-network and a sub-network preference is e.g. preferred processing capacity distribution in the different network elements of the sub-network.

Page 7, paragraph beginning at line 6, amend as follows:

A further characteristic feature [is described in claim 3. The] of the invention is that the predefined requirements and preferences are e.g. communicated by a user to a the party that exploits the processing environment determining means and are entered as a parameter in an algorithm that represents the predefined rules and conditions. However, [in claim 3,] the processing environment determining means further comprises second retrieving means to retrieve, not only from a memory, but eventual also 'on line' updated user requirements, user preferences, operator requirements, operator preferences, service provider requirements and service provider preferences from any one of a terminal, a network element and a service provider equipment.

paragraph beginning at line 29, amend as follows:

This problem is solved by the [characteristic] feature of [claim 4] the invention whereby the first retrieving means retrieves the processing capability

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information from any one of a terminal capability server means via predefined terminal application open signals and a network service capability server means of a sub-network via predefined network application open service architecture signals.

Page 10, paragraph beginning at line 15, amend as follows:

[Claim 5, describes] A further feature of the invention is that the processing environment determining means according to the present invention can be comprised in any one of a terminal, a sub-network being any one of a home network, a visited network and an intermediate network of said telecommunication network and a service provider equipment.

paragraph beginning at line 20, amend as follows:

A final characteristic [features] feature becomes clear by explaining that the first retrieving means might retrieve processing capability information that is associated [to] with any one of a User Service Identity Module USIM of a terminal and a terminal equipment of a terminal. Indeed, as it is described above, a terminal can comprise next to its terminal equipment also [an] a USIM that has its own processing capability. [This is described in claim 6.]

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A processing environment determining [means (PED)] device for inclusion in a telecommunication network, **characterized** in that said processing environment determining [means (PED)] device comprises a first [retrieving means (RET1) to retrieve] which retrieves at least one [or more] processing capability information [(P_T1; P_T2; P_HN; P_VN; P_IN; P_SPE)] associated [to] with any one of a terminal [(T1; T2)], a network element [(HNE; VNE; INE)] of a sub-network [(HN; VN; IN)] and a service provider equipment [(SPE)] of a service provider [(SP)] of said telecommunication network; and said processing environment

determining [means (PED)] device further comprises an appointing [means (APP) being] device coupled to said first [retrieving means (RET1)] retriever to appoint, for a predefined service of a predefined client, according to predefined rules and conditions, and according to said processing capability information [(P_T1; P_T2; P_HN; P_VN; P_IN; P_SPE)], one or more out of said terminal [(T1; T2)], said network elements [(HNE; VNE; INE)] and said service provider equipment [(SPE)], and to determine thereby an appointed processing environment [(P_APP)] that has to be used to execute said predefined service.

2. (Amended) The processing environment determining [means (PED)] device according to claim 1, characterized in that said predefined rules and conditions are at least partly determined by any one of:

user requirements and user preferences of a user [(U)] that uses said terminal [(T1; T2)],

operator requirements and operator preferences of an operator that exploits said network element [(HNE; VNE; INE)],

service provider requirements, and

service provider preferences of a service provider [(SP)] that operates said service provider equipment [(SPE)].

3. (Amended) The processing environment determining [means (PED)] device according to [any one of]claim 1 [and claim 2], characterized in that said processing environment determining [means (PED)] device comprises a second [retrieving means (RET2) to retrieve] retriever retrieving any one of said user requirements, said user preferences, said operator preferences, said server provider requirements, said service provider preferences from any one of said terminal [(T1; T2)], said network elements [(HNE; VNE, INE)] and said service provider equipment [(SPE)] in order to update said predefined rules and conditions accordingly.

4. (Amended) The processing environment determining [means (PED)] device according to [any previous claim]claim 1, characterized in that said first [retrieving means (RET1)]

retriever retrieves said [one or more] processing capability information [(P_T1; P_T2; P_HN; P_VN; P_IN; P_SPE)] from any one of a terminal capability server [means (CS_T1; CS_T2)] of said terminal [(T1; T2)] via predefined terminal application open signals and a network service capability server [means (SCS_HN; SCS_VN; SCS_IN)] of a sub-network [(HN; VN; IN)] via predefined network application open service architecture signals.

5. (Amended) The processing environment determining [means (PED)] device according to [any previous claim]claim 1, characterized in that said processing environment determining [means (PED)] device is comprised in any one of a terminal [(T1; T2)], a sub-network being any one of a home network [(HN)], a visited network [(VN)] and a intermediate network [(IN)] of said telecommunication network and a service provider equipment [(SPE)].

6. (Amended) The processing environment determining [means (PED)] device according to [any previous claim]claim 1, characterized in that said first [retrieving means (RET1)] retriever retrieves processing capability information [(P_T1; P_T2)] that is associated [to] with any one of a User Service Identity Module [(USIM)] of said terminal [(T1; T2)] and a terminal equipment [(TE)] of said terminal [(T1; T2)].

7. (Amended) A terminal capability server [means (CS_T1; CS_T2)] of a terminal [(T1, T2)] to be used in a telecommunication network, said terminal capability server [means (CS_T1; CS_T2)] is adapted to translate first application signals [(S1)] into first predefined terminal application open signals [(SO1)] and to translate second predefined terminal application open signals [(SO2)] into second application signals [(S2)], characterized in that said first predefined terminal application open signals [(SO1)] and said second predefined terminal application open

signals [(SO2)] comprises a processing capability environment determining [means [(PED)]
device according to [any one of claim 4]claim 4.

8. (Amended) A network service capability server [means (SCS_HN; SCS_VN; SCS_IN)] of a sub-network [(HN; VN; IN)] of a telecommunication network, said network service capability server [means (SCS_HN; SCS_VN; SCS_IN) is] adapted to translate first application signals [(N_S1)] into first predefined network application open service architecture signals [(N_SO1)] and to translate second predefined network application open service architecture signals [(N_SO2)] into second application signals [(N_S2)], characterized in that said first predefined network application open server architecture signals [(N_SO1)] and said second predefined network application open service architecture signals [(N_SO2)] [comprises] comprise processing capability information [(P_HN; P_VN; P_IN)] in order to be forwarded to a processing environment determining [means (PED)] device according to [any one of claim 4]claim 4.

9. (Amended) A telecommunication network, characterized in that said telecommunication network comprises at least one processing environment determining [means (PED)] device according to [any previous claim]claim 1.